

# Rodney T Venterea

## List of Publications by Year in descending order

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99  
papers

7,860  
citations

61857

43  
h-index

51492

86  
g-index

101  
all docs

101  
docs citations

101  
times ranked

7554  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Productivity limits and potentials of the principles of conservation agriculture. <i>Nature</i> , 2015, 517, 365-368.   | 13.7 | 1,005     |
| 2  | Tillage and soil carbon sequestration—What do we really know?. <i>Agriculture, Ecosystems and Environment</i> , 2007, 118, 1-5.   | 2.5  | 971       |
| 3  | When does no-till yield more? A global meta-analysis. <i>Field Crops Research</i> , 2015, 183, 156-168.   | 2.3  | 538       |
| 4  | Climate, duration, and N placement determine N <sub>2</sub> O emissions in reduced tillage systems: a meta-analysis. <i>Global Change Biology</i> , 2013, 19, 33-44.  | 4.2  | 347       |
| 5  | Nitrogen Oxide and Methane Emissions under Varying Tillage and Fertilizer Management. <i>Journal of Environmental Quality</i> , 2005, 34, 1467-1477.  | 1.0  | 251       |
| 6  | Biochar's role as an alternative N-fertilizer: ammonia capture. <i>Plant and Soil</i> , 2012, 350, 35-42.   | 1.8  | 242       |
| 7  | Fertilizer Source and Tillage Effects on Yield-Scaled Nitrous Oxide Emissions in a Corn Cropping System. <i>Journal of Environmental Quality</i> , 2011, 40, 1521-1531.                                       | 1.0  | 237       |
| 8  | Challenges and opportunities for mitigating nitrous oxide emissions from fertilized cropping systems. <i>Frontiers in Ecology and the Environment</i> , 2012, 10, 562-570.                                    | 1.9  | 220       |
| 9  | Calculating the Detection Limits of Chamber-based Soil Greenhouse Gas Flux Measurements. <i>Journal of Environmental Quality</i> , 2012, 41, 705-715.   | 1.0  | 174       |
| 10 | Effects of elevated carbon dioxide and increased temperature on methane and nitrous oxide fluxes: evidence from field experiments. <i>Frontiers in Ecology and the Environment</i> , 2012, 10, 520-527.       | 1.9  | 172       |
| 11 | Nitrous oxide emissions are enhanced in a warmer and wetter world. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12081-12085.                           | 3.3  | 155       |
| 12 | Nitrite-driven nitrous oxide production under aerobic soil conditions: kinetics and biochemical controls. <i>Global Change Biology</i> , 2007, 13, 1798-1809.   | 4.2  | 148       |
| 13 | Mechanisms and kinetics of nitric and nitrous oxide production during nitrification in agricultural soil. <i>Global Change Biology</i> , 2000, 6, 303-316.  | 4.2  | 140       |
| 14 | Indirect nitrous oxide emissions from streams within the US Corn Belt scale with stream order. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9839-9843. | 3.3  | 131       |
| 15 | Nitrite intensity explains N management effects on N <sub>2</sub> O emissions in maize. <i>Soil Biology and Biochemistry</i> , 2013, 66, 229-238.   | 4.2  | 125       |
| 16 | Ammonium sorption and ammonia inhibition of nitrite-oxidizing bacteria explain contrasting soil N <sub>2</sub> O production. <i>Scientific Reports</i> , 2015, 5, 12153.                                      | 1.6  | 125       |
| 17 | Nitrogen oxide gas emissions from temperate forest soils receiving long-term nitrogen inputs. <i>Global Change Biology</i> , 2003, 9, 346-357.  | 4.2  | 122       |
| 18 | Simplified Method for Quantifying Theoretical Underestimation of Chamber-Based Trace Gas Fluxes. <i>Journal of Environmental Quality</i> , 2010, 39, 126-135.   | 1.0  | 103       |

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|----|--|-----|-----------|
| 19 | Polymer-Coated Urea Maintains Potato Yields and Reduces Nitrous Oxide Emissions in a Minnesota Loamy Sand. <i>Soil Science Society of America Journal</i> , 2010, 74, 419-428.                                   | 1.2 | 103       |
| 20 | Biotic and abiotic immobilization of ammonium, nitrite, and nitrate in soils developed under different tree species in the Catskill Mountains, New York, USA. <i>Global Change Biology</i> , 2003, 9, 1591-1601. | 4.2 | 101       |
| 21 | Accuracy and Precision Analysis of Chamber-Based Nitrous Oxide Gas Flux Estimates. <i>Soil Science Society of America Journal</i> , 2009, 73, 1087-1093.   | 1.2 | 95        |
| 22 | Urea Decreases Nitrous Oxide Emissions Compared with Anhydrous Ammonia in a Minnesota Corn Cropping System. <i>Soil Science Society of America Journal</i> , 2010, 74, 407-418.                                  | 1.2 | 92        |
| 23 | Fertilizer and Irrigation Management Effects on Nitrous Oxide Emissions and Nitrate Leaching. <i>Agronomy Journal</i> , 2014, 106, 703-714.  | 0.9 | 84        |
| 24 | Impact of reduced tillage and cover cropping on the greenhouse gas budget of a maize/soybean rotation ecosystem. <i>Agriculture, Ecosystems and Environment</i> , 2009, 134, 234-242.                            | 2.5 | 83        |
| 25 | Nitric and nitrous oxide emissions following fertilizer application to agricultural soil: Biotic and abiotic mechanisms and kinetics. <i>Journal of Geophysical Research</i> , 2000, 105, 15117-15129.           | 3.3 | 80        |
| 26 | Gross nitrogen process rates in temperate forest soils exhibiting symptoms of nitrogen saturation. <i>Forest Ecology and Management</i> , 2004, 196, 129-142.  | 1.4 | 79        |
| 27 | Nitrification gene ratio and free ammonia explain nitrite and nitrous oxide production in urea-amended soils. <i>Soil Biology and Biochemistry</i> , 2017, 111, 143-153.   | 4.2 | 76        |
| 28 | Reconciling the differences between top-down and bottom-up estimates of nitrous oxide emissions for the U.S. Corn Belt. <i>Global Biogeochemical Cycles</i> , 2013, 27, 746-754.                                 | 1.9 | 71        |
| 29 | Evaluation of Intensive Strategies for Decreasing Nitrous Oxide Emissions and Nitrogen Surplus in Rainfed Corn. <i>Journal of Environmental Quality</i> , 2016, 45, 1186-1195.                                   | 1.0 | 71        |
| 30 | US agricultural nitrous oxide emissions: context, status, and trends. <i>Frontiers in Ecology and the Environment</i> , 2012, 10, 537-546.   | 1.9 | 70        |
| 31 | Nitrogen fertilization reduces yield declines following no-till adoption. <i>Field Crops Research</i> , 2015, 183, 204-210.  | 2.3 | 69        |
| 32 | Effects of Manure and Cultivation on Carbon Dioxide and Nitrous Oxide Emissions from a Corn Field under Mediterranean Conditions. <i>Journal of Environmental Quality</i> , 2010, 39, 437-448.                   | 1.0 | 63        |
| 33 | Soil Greenhouse Gas Emissions in Response to Corn Stover Removal and Tillage Management Across the US Corn Belt. <i>Bioenergy Research</i> , 2014, 7, 517-527.   | 2.2 | 60        |
| 34 | Carbon and Nitrogen Storage are Greater under Biennial Tillage in a Minnesota Corn-Soybean Rotation. <i>Soil Science Society of America Journal</i> , 2006, 70, 1752-1762.                                       | 1.2 | 60        |
| 35 | Split Application of Urea Does Not Decrease and May Increase Nitrous Oxide Emissions in Rainfed Corn. <i>Agronomy Journal</i> , 2015, 107, 337-348.  | 0.9 | 56        |
| 36 | Identifying environmental drivers of greenhouse gas emissions under warming and reduced rainfall in boreal-temperate forests. <i>Functional Ecology</i> , 2017, 31, 2356-2368.                                   | 1.7 | 56        |

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|----|---|-----|-----------|
| 37 | Survey of nitrogen fertilizer use on corn in Minnesota. <i>Agricultural Systems</i> , 2012, 109, 43-52.   | 3.2 | 55        |
| 38 | Profile Analysis and Modeling of Reduced Tillage Effects on Soil Nitrous Oxide Flux. <i>Journal of Environmental Quality</i> , 2008, 37, 1360-1367.   | 1.0 | 54        |
| 39 | Performance of Agricultural Residue Media in Laboratory Denitrifying Bioreactors at Low Temperatures. <i>Journal of Environmental Quality</i> , 2016, 45, 779-787.  | 1.0 | 54        |
| 40 | Regional-scale controls on dissolved nitrous oxide in the Upper Mississippi River. <i>Geophysical Research Letters</i> , 2016, 43, 4400-4407.   | 1.5 | 54        |
| 41 | Broadcast Urea Reduces N <sub>2</sub> O but Increases NO Emissions Compared with Conventional and Shallow-applied Anhydrous Ammonia in a Coarse-textured Soil. <i>Journal of Environmental Quality</i> , 2011, 40, 1806-1815. | 1.0 | 49        |
| 42 | Nitrogen Immobilization and Mineralization Kinetics of Cattle, Hog, and Turkey Manure Applied to Soil. <i>Soil Science Society of America Journal</i> , 2008, 72, 1570-1579.  | 1.2 | 46        |
| 43 | Global Research Alliance N <sub>2</sub> O chamber methodology guidelines: Flux calculations. <i>Journal of Environmental Quality</i> , 2020, 49, 1141-1155.   | 1.0 | 46        |
| 44 | Mechanisms of N <sub>2</sub> O production following chloropicrin fumigation. <i>Applied Soil Ecology</i> , 2006, 31, 101-109.   | 2.1 | 44        |
| 45 | Fertilizer Management Effects on Nitrate Leaching and Indirect Nitrous Oxide Emissions in Irrigated Potato Production. <i>Journal of Environmental Quality</i> , 2011, 40, 1103-1112.   | 1.0 | 43        |
| 46 | Nitrous Oxide Fluxes, Soil Oxygen, and Denitrification Potential of Urine- and Non-Urine-Treated Soil under Different Irrigation Frequencies. <i>Journal of Environmental Quality</i> , 2016, 45, 1169-1177.                  | 1.0 | 41        |
| 47 | Long-lasting effects on nitrogen cycling 12 years after treatments cease despite minimal long-term nitrogen retention. <i>Global Change Biology</i> , 2009, 15, 1755-1766.  | 4.2 | 40        |
| 48 | Effects of Soil Physical Nonuniformity on Chamber-Based Gas Flux Estimates. <i>Soil Science Society of America Journal</i> , 2008, 72, 1410-1417.   | 1.2 | 39        |
| 49 | Soil emissions of nitric oxide in two forest watersheds subjected to elevated N inputs. <i>Forest Ecology and Management</i> , 2004, 196, 335-349.  | 1.4 | 38        |
| 50 | Nitrous Oxide Fluxes and Soil Oxygen Dynamics of Soil Treated with Cow Urine. <i>Soil Science Society of America Journal</i> , 2017, 81, 289-298.   | 1.2 | 38        |
| 51 | Urea Amendment Decreases Microbial Diversity and Selects for Specific Nitrifying Strains in Eight Contrasting Agricultural Soils. <i>Frontiers in Microbiology</i> , 2018, 9, 634.  | 1.5 | 37        |
| 52 | Greenhouse gas production and emission from a forest nursery soil following fumigation with chloropicrin and methyl isothiocyanate. <i>Soil Biology and Biochemistry</i> , 2005, 37, 475-485.                                 | 4.2 | 36        |
| 53 | Landscape Patterns of Net Nitrification in a Northern Hardwood-Conifer Forest. <i>Soil Science Society of America Journal</i> , 2003, 67, 527.  | 1.2 | 36        |
| 54 | Denitrifying Bacteria Active in Woodchip Bioreactors at Low-Temperature Conditions. <i>Frontiers in Microbiology</i> , 2019, 10, 635.   | 1.5 | 33        |

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|----|--|-----|-----------|
| 55 | Theoretical Comparison of Advanced Methods for Calculating Nitrous Oxide Fluxes using Non-steady State Chambers. <i>Soil Science Society of America Journal</i> , 2013, 77, 709-720.                       | 1.2 | 30        |
| 56 | Enhanced Efficiency Fertilizers: A Multi-Site Comparison of the Effects on Nitrous Oxide Emissions and Agronomic Performance. <i>Agronomy Journal</i> , 2014, 106, 679-680.                                | 0.9 | 26        |
| 57 | Nitrogen Management Affects Nitrous Oxide Emissions under Varying Cotton Irrigation Systems in the Desert Southwest, USA. <i>Journal of Environmental Quality</i> , 2018, 47, 70-78.                       | 1.0 | 26        |
| 58 | Split application of stabilized ammonium nitrate improved potato yield and nitrogen-use efficiency with reduced application rate in tropical sandy soils. <i>Field Crops Research</i> , 2020, 254, 107847. | 2.3 | 24        |
| 59 | Nitrite accumulation and nitrogen gas production increase with decreasing temperature in urea-amended soils: Experiments and modeling. <i>Soil Biology and Biochemistry</i> , 2020, 142, 107727.           | 4.2 | 24        |
| 60 | Isolation and characterization of denitrifiers from woodchip bioreactors for bioaugmentation application. <i>Journal of Applied Microbiology</i> , 2020, 129, 590-600.                                     | 1.4 | 22        |
| 61 | Co-application of DMPSA and NBPT with urea mitigates both nitrous oxide emissions and nitrate leaching during irrigated potato production. <i>Environmental Pollution</i> , 2021, 284, 117124.             | 3.7 | 21        |
| 62 | A geostatistical approach to identify and mitigate agricultural nitrous oxide emission hotspots. <i>Science of the Total Environment</i> , 2016, 572, 442-449.   | 3.9 | 20        |
| 63 | Contrasting effects of inhibitors and biostimulants on agronomic performance and reactive nitrogen losses during irrigated potato production. <i>Field Crops Research</i> , 2019, 240, 143-153.            | 2.3 | 20        |
| 64 | Corn Nitrogen Management Influences Nitrous Oxide Emissions in Drained and Undrained Soils. <i>Journal of Environmental Quality</i> , 2016, 45, 1847-1855.   | 1.0 | 18        |
| 65 | Density and pressure effects on the transport of gas phase chemicals in unsaturated porous media. <i>Water Resources Research</i> , 2003, 39, .  | 1.7 | 17        |
| 66 | Soil Water Dynamics and Nitrate Leaching Under Corn-Soybean Rotation, Continuous Corn, and Kura Clover. <i>Vadose Zone Journal</i> , 2018, 17, 1-11.   | 1.3 | 17        |
| 67 | Kura Clover Living Mulch: Spring Management Effects on Nitrogen. <i>Agronomy</i> , 2019, 9, 69.  | 1.3 | 16        |
| 68 | NITROGEN OXIDE TRACE GAS TRANSPORT AND TRANSFORMATION: II. MODEL SIMULATIONS COMPARED WITH DATA. <i>Soil Science</i> , 2002, 167, 49-61.   | 0.9 | 14        |
| 69 | Global Research Alliance N <sub>2</sub> O chamber methodology guidelines: Introduction, with health and safety considerations. <i>Journal of Environmental Quality</i> , 2020, 49, 1073-1080.              | 1.0 | 13        |
| 70 | Impact of Kura Clover Living Mulch on Nitrous Oxide Emissions in a Corn-Soybean System. <i>Journal of Environmental Quality</i> , 2016, 45, 1782-1787.   | 1.0 | 12        |
| 71 | Temperature and water-level effects on greenhouse gas fluxes from black ash ( <i>Fraxinus nigra</i> ) wetland soils in the Upper Great Lakes region, USA. <i>Applied Soil Ecology</i> , 2020, 153, 103565. | 2.1 | 12        |
| 72 | Corn Response to Nitrogen Management under Fully-Irrigated vs. Water-Stressed Conditions. <i>Agronomy Journal</i> , 2016, 108, 2089-2098.  | 0.9 | 11        |

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|----|---|-----|-----------|
| 73 | Effects of Nitrogen Fertilizer Types on Nitrous Oxide Emissions. ACS Symposium Series, 2011, , 179-202.   | 0.5 | 10        |
| 74 | Elevated CO <sub>2</sub> and O <sub>3</sub> modify N turnover rates, but not N <sub>2</sub> O emissions in a soybean agroecosystem. Soil Biology and Biochemistry, 2012, 51, 104-114.     | 4.2 | 10        |
| 75 | Anhydrous Ammonia Injection Depth Does Not Affect Nitrous Oxide Emissions in a Silt Loam over Two Growing Seasons. Journal of Environmental Quality, 2014, 43, 1527-1535.                 | 1.0 | 10        |
| 76 | Modeling nitrous oxide mitigation potential of enhanced efficiency nitrogen fertilizers from agricultural systems. Science of the Total Environment, 2021, 801, 149342.                   | 3.9 | 10        |
| 77 | Assessing Microbial Contributions to N <sub>2</sub> O Impacts Following Biochar Additions. Agronomy, 2014, 4, 478-496.  | 1.3 | 9         |
| 78 | Temperature alters dicyandiamide (DCD) efficacy for multiple reactive nitrogen species in urea-amended soils: Experiments and modeling. Soil Biology and Biochemistry, 2021, 160, 108341. | 4.2 | 9         |
| 79 | USDA-ARS Global Change Research on Rangelands and Pasturelands. Rangelands, 2005, 27, 36-42.  | 0.9 | 8         |
| 80 | Measurements and Models to Identify Agroecosystem Practices That Enhance Soil Organic Carbon under Changing Climate. Journal of Environmental Quality, 2018, 47, 579-587.                 | 1.0 | 8         |
| 81 | Response of nitrous oxide emissions to individual rain events and future changes in precipitation. Journal of Environmental Quality, 2022, 51, 312-324.                                   | 1.0 | 8         |
| 82 | NITROGEN OXIDE TRACE GAS TRANSPORT AND TRANSFORMATION: I. EVALUATION OF DATA FROM INTACT SOIL CORES. Soil Science, 2002, 167, 35-48.  | 0.9 | 7         |
| 83 | Kura Clover Living Mulch Reduces Fertilizer N Requirements and Increases Profitability of Maize. Agronomy, 2019, 9, 432.  | 1.3 | 7         |
| 84 | Phosphorus and Greenhouse Gas Dynamics in a Drained Calcareous Wetland Soil in Minnesota. Journal of Environmental Quality, 2009, 38, 2147-2158.  | 1.0 | 6         |
| 85 | Plastic Biofilm Carrier after Corn Cobs Reduces Nitrate Loading in Laboratory Denitrifying Bioreactors. Journal of Environmental Quality, 2017, 46, 915-920.                              | 1.0 | 6         |
| 86 | The role of alanine synthesis and nitrate-induced nitric oxide production during hypoxia stress in <i>Cucurbita pepo</i> nectaries. Plant Journal, 2021, 105, 580-599.                    | 2.8 | 6         |
| 87 | Quantifying Biases in Non-Steady-State Chamber Measurements of Soil "Atmosphere Gas Exchange. , 2012, , 327-343.  |     | 5         |
| 88 | Managing biogeochemical cycles to reduce greenhouse gases. Frontiers in Ecology and the Environment, 2012, 10, 511-511.   | 1.9 | 4         |
| 89 | Do Soil Tests Help Forecast Nitrogen Response in First-Year Corn Following Alfalfa on Fine-Textured Soils?. Soil Science Society of America Journal, 2017, 81, 1640-1651.                 | 1.2 | 4         |
| 90 | LANDSCAPE AND REGIONAL SCALE STUDIES OF NITROGEN GAS FLUXES. , 2006, , 191-203.   |     | 4         |

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|----|---|-----|-----------|
| 91 | Nitrous oxide emissions, N uptake, biomass, and rubber yield in N-fertilized, surface-irrigated guayule. <i>Industrial Crops and Products</i> , 2021, 167, 113561.  | 2.5 | 3         |
| 92 | Capture efficiency of four chamber designs for measuring ammonia emissions. , 2021, 4, e20199.  |     | 3         |
| 93 | Measurement of nitrous oxide concentrations from Wisconsin dairy barns. , 2009, , .   |     | 2         |
| 94 | Nitrogen Management Affects Nitrous Oxide Emissions under Varying Cotton Irrigation Systems in the Desert Southwest, USA. <i>Journal of Environmental Quality</i> , 2018, 47, 1572-1572.                    | 1.0 | 2         |
| 95 | Effect of simulated emerald ash borer infestation on nitrogen cycling in black ash ( <i>Fraxinus nigra</i> ) wetlands in northern Minnesota, USA. <i>Forest Ecology and Management</i> , 2020, 458, 117769. | 1.4 | 2         |
| 96 | Evaluation of Intensive "Strategies for Decreasing Nitrous Oxide Emissions and Nitrogen Surplus in Rainfed Corn. <i>Journal of Environmental Quality</i> , 2017, 46, 478-478.                               | 1.0 | 1         |
| 97 | Ammonium sorption and ammonia inhibition of nitrite-oxidizing bacteria explain contrasting soil N <sub>2</sub> O production. , 0, .   |     | 1         |
| 98 | Greening Vermont: The Search for a Sustainable State. <i>Journal of Environmental Quality</i> , 2013, 42, 1908-1908.  | 1.0 | 0         |
| 99 | Aeration. , 2022, , .   |     | 0         |